

Amendments to the Claims

1. (Currently Amended) A process for controlling the charge of an ~~The use of~~
~~layered double hydroxide salts as charge control agents in electrophotographic~~
~~toner, electrophotographic developer, toners and developers, in powder coating~~
~~materials~~material, ~~electret materials~~ material or a chargeable material in an and in
electrostatic separation ~~processes of chargeable materials~~process comprising the
step of adding at least one charge control agent to the electrophotographic toner,
electrophotographic developer, powder coating material electric material or
chargeable material, wherein the at least one charge control agent is a layered
double hydroxide salt comprising
~~, wherein the double hydroxide salt contains at least one of monovalent and/or and~~
divalent metal cations, ~~and also~~
trivalent metal cations, ~~and also contains~~
one or more organic anions A of the formula (I)



~~in which~~wherein

X is hydroxyl, carboxyl, sulfato or sulfo;

Y is carboxyl, sulfate or sulfo, and

R is an aliphatic, cycloaliphatic, heterocycloaliphatic, olefinic,
cycloolefinic, heterocycloolefinic, aromatic, heteroaromatic, araliphatic or
heteroaraliphatic radical having a total of at least 8 carbon atoms, ~~which may~~

~~be~~optionally substituted by one or more substituents selected from the group consisting of hydroxyl, amino, halogen, C₁-C₂₂-alkyl, C₁-C₂₂-alkoxy, -C₁-C₂₂-alkylene-(CO)-O-(CH₂CH₂O)₀₋₅₀-alkyl, -C₁-C₂₂-alkylene-(CO)-O-(CH₂CH₂O)₀₋₅₀-haloalkyl, carboxyl, sulfo, nitro and cyano.

2. (Currently Amended) The use-process as claimed in claim 1, wherein the number of hydroxyl groups in the layered double hydroxide salt is from 1.8 to 2.2 times the sum of all the metal cations.
3. (Currently Amended) The use-process as claimed in claim 1 ~~or 2~~, wherein the monovalent metal cations present are those selected from the group consisting of Li⁺, Na⁺ and K⁺, ~~divalent metal cations present are those from the group~~ Mg²⁺, Ca²⁺, Zn²⁺, Co²⁺, Ni²⁺, Fe²⁺, Cu²⁺ and Mn²⁺, and trivalent metal cations present are those from the group Al³⁺, Fe³⁺, Co³⁺, Mn³⁺, Ni³⁺, Cr³⁺ and B³⁺.
4. (Currently Amended) The use-process as claimed in ~~one or more of claims 1 to 3~~claim 1, wherein the double hydroxide ~~salts contain~~ salt contains Mg²⁺ and Al³⁺.
5. (Currently Amended) The use-process as claimed in claim 4, wherein the molar ratio Mg²⁺ : Al³⁺ is from 3.1:1 to 1:2.
6. (Currently Amended) The use-process as claimed in ~~one or more of claims 1 to 5~~claim 1, wherein the one or more organic anion ~~anions~~ A is an anion selected

from the group consisting of benzoic acid, naphthalenedisulfonic acids, naphthalenedicarboxylic acids, hydroxynaphthoic acids, octanedicarboxylic acid, decanedicarboxylic acid, dodecanedicarboxylic acid, tetradecanedicarboxylic acid, hexadecanedicarboxylic acid, octadecanedicarboxylic acid, naphthalenetetracarboxylic acid, sulfosuccinic acid (C₆-C₂₀)-alkyl monoesters and sulfosuccinic acid (C₆-C₂₂)-fluoroalkyl monoesters.

7. (Currently Amended) The use-process as claimed in ~~at least one of claims 1 to 6~~ claim 1, wherein ~~some of the one or more~~ organic anions A are more than one organic anions and at least one of the more than one organic anions are of the ~~are replaced by other organic anions A', A' corresponding to the~~ formula H-R-Y and ~~both R and Y having the definition described in formula (1).~~

8. (Currently Amended) The use-process as claimed in claim 7, wherein A' ~~the~~ at least one of the more than one organic cations is an anion of a C₁₂-C₄₄ fatty acid, ~~especially stearic acid.~~

9. (Currently Amended) The use-process as claimed in ~~at least one of claims 1 to 6~~ claim 1, wherein the layered double hydroxide salt is a calcined hydrotalcite.

10. (Currently Amended) The use-process as claimed in ~~at least one of claims 1 to 7 in combination with one or more further~~ claim 1, wherein the adding step further comprises adding at least one charge control agents-agent selected from the group

consisting of triphenylmethanes; ammonium and compounds; immonium compounds, iminium compounds; fluorinated ammonium and compounds; fluorinated immonium compounds; biscationic acid amides; polymeric ammonium compounds; diallylammonium compounds; aryl sulfide derivatives, phenol derivatives; phosphonium compounds; and fluorinated phosphonium compounds; calix[n]arenes, cyclically linked oligosaccharides (cyclodextrins), interpolyelectrolyte complexes (IPECs); polyester salts; metal complex compounds, salts of ionic structured silicates, hydroxycarboxylic acid-metal complexes; and hydroxycarboxylic acid-nonmetal complexes, benzimidazolones; azines, thiazines or and oxazines, which are listed in the Colour Index as Pigments, Solvent Dyes, Basic Dyes or Acid Dyes.

11. (Currently Amended) The use process as claimed in at least one of claims 4 to 8 in a concentration of claim 1, wherein the at least one charge control agent is present from 0.01% to 50% by weight, based on the total weight of the electrophotographic toner, electrophotographic developer, coating material, powdercoating material, electret material or materials for electrostatic separation chargeable material.

12. (Currently Amended) An electrophotographic toner, powder or powdercoating material, containing comprising from 30% to 99.99% by weight of a binder, from 0.01% to 50% by weight of at least one layered double hydroxide salt as set forth in claims 1 to 9 comprising at least one of monovalent and divalent metal cations, trivalent metal cations, and

one or more organic anions A of the formula (I)



wherein

X is hydroxyl, carboxyl, sulfato or sulfo;

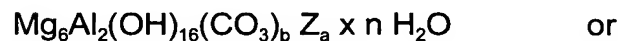
Y is carboxyl, sulfate or sulfo, and

R is an aliphatic, cycloaliphatic, heterocycloaliphatic, olefinic, cycloolefinic, heterocycloolefinic, aromatic, heteroaromatic, araliphatic or heteroaraliphatic radical having a total of at least 8 carbon atoms, optionally substituted by one or more substituents selected from the group consisting of hydroxyl, amino, halogen, C₁-C₂₂-alkyl, C₁-C₂₂-alkoxy, -C₁-C₂₂-alkylene-(CO)-O-(CH₂CH₂O)₀₋₅₀-alkyl, -C₁-C₂₂-alkylene-(CO)-O-(CH₂CH₂O)₀₋₅₀-haloalkyl, carboxyl, sulfo, nitro and cyano, and, if desired, from 0.001% to 50% by weight of a colorant, wherein the weight percentages are based in each case on the total weight of the electrophotographic toner, powder or powdercoating material.

13. (Currently Amended) A magnesium-aluminum hydroxide carbonate having an Mg to Al ratio of from 1.9:1 to 3.1:1, containing anions in the following proportions, based in each case proportion based on the total weight of the Mg-Al hydroxide carbonate:

from 1% to 45% by weight of a combination of sebacic acid and a C₁₂-C₄₄ fatty acid or of a partly fluorinated or perfluorinated sulfosuccinic acid (C₆-C₂₂)alkyl monoester, the ratio between sebacic acid and the fatty acid or the sulfosuccinic monoester being from 1:50 to 5:1, or from 0.5% to 70% by weight of a partly fluorinated or perfluorinated sulfosuccinic acid (C₆-C₂₂)alkyl monoester.

14. (Currently Amended) A magnesium-aluminum hydroxide carbonate as claimed in claim 13, ~~characterized by one~~ wherein the magnesium-aluminum hydroxide carbonate is of the formulae



where b is zero to 1, n is zero to 10, Z is a combination of anions of sebacic acid and anions of one or more C₁₂-C₄₄ fatty acids, ~~especially stearic acid~~, and the number a is such that Z accounts for from 1% to 45% by weight, based on the total weight of the compound, and where the ratio between sebacic acid and the fatty acid or the sulfosuccinic monoester is from 1:50 to 5:1.

15. (New) The process as claimed in claim 1, wherein divalent metal cations are selected from the group consisting of Mg²⁺, Ca²⁺, Zn²⁺, Co²⁺, Ni²⁺, Fe²⁺, Cu²⁺ and Mn²⁺

16. (New) The process as claimed in claim 1, wherein the trivalent metal cations present are selected from the group consisting of Al³⁺, Fe³⁺, Co³⁺, Mn³⁺, Ni³⁺, Cr³⁺ and B³⁺.

17. (New) The process as claimed in claim 8, wherein the C₁₂-C₄₄ fatty acid is stearic acid.

18. (New) The electrophotographic toner, powder or powdercoating material as claimed in claim 12, further comprising from 0.001% to 50% by weight of a colorant.

19. (New) A magnesium-aluminum hydroxide carbonate having an Mg to Al ratio of from 1.9:1 to 3.1:1, containing anions in the following proportion based on the total weight of the Mg-Al hydroxide carbonate:

from 0.5% to 70% by weight of a partly fluorinated or perfluorinated sulfosuccinic acid (C₆-C₂₂)alkyl monoester.

20. (New) The magnesium-aluminum hydroxide carbonate as claimed in claim 14, wherein the magnesium-aluminum hydroxide carbonate is of the formulae:



21. (New) magnesium-aluminum hydroxide carbonate as claimed in claim 14, wherein the magnesium-aluminum hydroxide carbonate is of the formulae:



22. (New) A charge controlled electrophotographic toner, electrophotographic developer, powder coating material, electret material or chargeable material for use

in an and in electrostatic separation process made in accordance with the process of claim 1.

23. (New) The process according to claim 1, wherein the electrophotographic toner, electrophotographic developer, powder coating material, electret material or a chargeable material further comprises a binder and the adding step further comprises incorporating the at least one charge control agent into the binder.

24. (New) The process as recited in claim 1, wherein the at least one charge control agent is present as an aqueous, aqueous-organic or organic dispersion.

25. (New) The process as recited in claim 24, wherein the at least one charge control agent has a particle size between 20 nm and 1 μm .

26. (New) The process as recited in claim 24, wherein the at least one charge control agent has a particle size between 50 and 500 nm.